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EXAMINER

DO, A

ART UNIT

PAPER NUMBER

2724

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/430,792

Applicant(s)
Jones et al.

Examiner
Anh Hong Do

Group Art Unit
2724



☒ Responsive to communication(s) filed on Jul 17, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-21 is/are pending in the application.

Of the above, claim(s) 1 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2-21 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 2-21 have been considered but are moot in view of the new ground(s) of rejection.

With regard to claim 1, the Applicants asserted "the apparatus taught and claimed by Vincent is for 'determining the color composition' of a part of an object and not for identification of the object itself". It may be true. However, the recitation "identification of the object" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

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A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 2 is rejected under the judicially created doctrine of double patenting over claims 1-13 of U. S. Patent No. 5,764,785 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows:

Comparing claim 2 of the application with claim 1 of Patent No. 5,764,785: Claim 2 of the application recites: An imaging system comprising: (claim 1 of the Patent: said first imaging system comprises:); a non-coherent light source for generating light, said non-coherent light source having a color temperature between 2000 Kelvins and 3500 Kelvins and a color rendition index (CRI) of more than 90 (claim 1 of the Patent: a non-coherent light source for generating light, said non-coherent light source having a color temperature between 2000 Kelvins and 3500 Kelvins and a color rendition index (CRI) of more than 90), a filter means for filtering said generated light, wherein said filter means permits the passage of light in the range of from 800 nanometers to 950 nanometers (claim 1 of the Patent: a filter means for filtering said generated

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light, wherein said filter means permits the passage of light in the range of from 800 nanometers to 950 nanometers), an imaging means for the translation of visible and infrared light reflected from an object into an electronic signal, said electronic signal is a video signal for the production of images of said object (claim 1 of the Patent: a first imaging means for the translation of visible and infrared light reflected from an object into a first electronic signal).

It is noted that claim 2 of the application is substantially different from claim 1 of the Patent by "*said electronic signal is a video signal for the production of images of said object*". However, this limitation is implicitly found in the preamble and the first display means of claim 1 of the Patent (the preamble recites "a remote object identification system" and the first display means clearly refers to "a video signal for the production of images of said object").

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Objections

4. Claim 4 is objected to because they do not comply with 37 CFR § 1.75(I) which requires "where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation". See MPEP § 608.01(m). Appropriate correction is required.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 4-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Vincent (U.S. Patent No. 5,272,518).

Regarding claim 4, Vincent discloses:

- a light unit projects light in the range of from 780 nm to 1000 nm onto an object (Fig. 1C shows light source 23 for projecting light onto an object 14, and col. 30, lines 25-26, discloses the light is an infrared light (i.e., from 750 nm to 1500 nm, which includes the range of from 780 nm to 1000 nm));

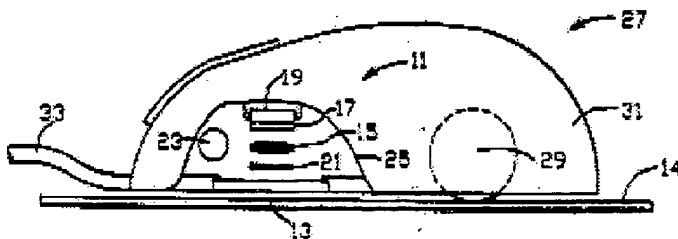


FIG.-1C

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- a lens receives light reflected from said object and transmits said reflected light to an imaging device (Fig. 1C shows lens 15 receives light reflected from object 14 and transmits the reflected light to the photosensor array 19);

- said reflected light comprises infrared light (col. 30, lines 25-26 discloses the light comprising an infrared light);

- said imaging device receives said reflected light and translates it into an electronic signal (Fig. 1C shows photosensor array 19 or colorimeter 11 for the translation of the light reflected from an object into an electronic signal as disclosed in col. 8, lines 56-60), said electronic signal is a video signal of the production of images of said object (col. 1, lines 21-22, discloses the colorimeter used for assessing the color of the object produced on a video screen, implying a video signal of the production images of the object).

Regarding claim 5, Vincent discloses:

- transmission means for transmitting said electronic signal (col. 11, lines 40-44, discloses a bypass signal path for transmitting the electronic signal to the I/O port and then to the information bus).

Regarding claim 6, Vincent teaches:

- said infrared is near infrared light (Fig.

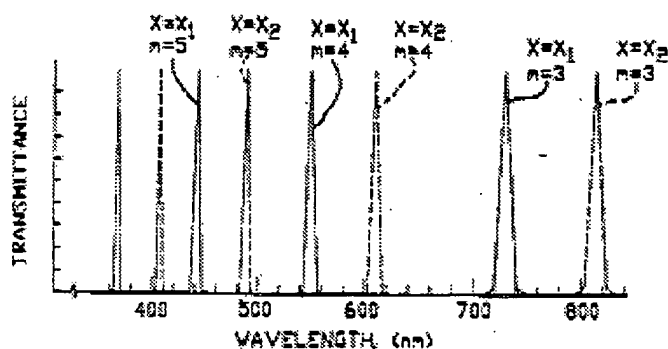


FIG.-9

9 shows the wavelength of the light is between 700 nm and 800 nm, which is in the range of near infrared light (i.e., 750 - 1500 nm).

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Regarding claims 7 and 10, Vincent shows:

- at least one filter (Fig. 1C shows variable wavelength filter 17).

Regarding claim 8, Vincent discloses:

- the object is a fault and the reflected light received by said imaging device comprises light in the range of from 780 nm to 820 nm (Fig. 1C shows the object 14 is a fault and the reflected light received by said photosensor array 19 comprises light in the range of infrared light as disclosed in col. 30, lines 25-26 (i.e., from 750 nm to 1500 nm, which includes the claimed range of from 780 nm to 820 nm).

Regarding claim 9, Vincent teaches:

- the wavelength of light reflected from a target object is known, and the light reflected from said target object and received by said imaging means is selectively filtered to permit the passage of light in a desired range, said desired range being dependant on the known wavelength of light transmitted from said target (col. 12, lines 26-39, discloses the light reflected from a target object to the photosensors is known as in the range of 385 nm and 725 nm, and Fig. 1C shows the light reflected from object 14 and received by variable wavelength filter 17 and photosensor array 19 is selectively filtered to permit the passage of light in a desired range of from 385 nm to 725 nm, said desired range being dependant on the known wavelength of light transmitted from the target 14).

Regarding claim 11, Vincent discloses:

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- the wavelength of light reflected from a target object is known, and the light projected onto said target by said light unit from is selectively filtered to permit the passage of light in a desired range, said desired range being dependant on the known wavelength of light transmitted from said target (col. 12, lines 26-39, discloses the light reflected from a target object to the photosensors is known as in the range of 385 nm and 725 nm, and Fig. 1C shows the light projected onto object 14 by light source 23 is selectively filtered by variable wavelength filter 17 to permit the passage of light in a desired range of from 385 nm to 725 nm, said desired range being dependant on the known wavelength of light transmitted from the target 14).

Regarding claim 12, Vincent shows:

- light source emits light in said desired range (Fig. 1C shows light source 23 emits light in said desired range of from 385 nm to 725 nm as disclosed in col. 12, lines 19-39).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent (U.S. Patent No. 5,272,518) in view of Genz (U.S. Patent No. 5,323,085).

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Regarding claim 2, Vincent discloses:

- a non-coherent light source for generating light (Fig. 1C shows light source 23 for generating light);
- filter means for filtering said generated light, wherein said filter means permits the passage of light in the range of from 800 nm to 950 nm (Fig. 1C shows variable wavelength filter 17 for filtering the generated light, and col. 30, lines 17-26, discloses the filter permits the passage of the light in the range of infrared light (i.e., from 750 nm to 1500 nm, which includes the claimed range of from 800 nm to 950 nm));
- an imaging means for the translation of visible and infrared light reflected from an object into an electronic signal (Fig. 1C shows photosensor array 19 or colorimeter 11 for the translation of the light reflected from an object into an electronic signal as disclosed in col. 8, lines 56-60, and col. 30, lines 25-26, discloses that the light is visible and infrared light), said electronic signal is a video signal of the production of images of said object (col. 1, lines 21-22, discloses the colorimeter used for assessing the color of the object produced on a video screen, implying a video signal of the production images of the object).

One skilled in the art would have recognized that a non-coherent light source in Vincent would basically have a color temperature and a color rendition index, and would need to provide sufficient light for the photosensor to produce an acceptable image of the object. Vincent does not specifically teach the color temperature is between 2000 K and 3500 K and the color rendition index is more than 90 as claimed. Genz teaches a light source with a color temperature between

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4000 K and 9000 K and a color rendition index of more than 90 (see Abstract), which needs for a special light color illumination effect. Therefore, it would have been obvious for Vincent to have the light source with a color temperature and a color rendition index of more than 90 as taught by Genz in order to have a special light color illumination effect such that an acceptable color image of the object can be obtained. Furthermore, although the color temperature in Genz is not between 2000 K and 3500 K as claimed, such a limitation is merely a matter of design choice and would have been obvious in the system of Vincent. The limitation does not define a patentably distinct invention over those in Vincent and Genz since the application as a whole and Vincent and Genz are directed to a light source for illuminating the object. The range in which the color temperature falls in presents no new or unexpected results. Therefore, to have the color temperature fell in such a range would have been a matter of design choice to one of ordinary skill in the art.

Regarding claim 3, Vincent discloses:

- transmission means for transmitting said electronic signal (col. 11, lines 40-44, discloses a bypass signal path for transmitting the electronic signal to the I/O port and then to the information bus).

9. Claims 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vincent (U.S. Patent No. 5,272,518) in view of Acuff (U.S. Patent No. 5,208,753).

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Regarding claims 13 and 16, although teaching imaging device (Fig. 1C shows photosensor array 19), Vincent does not explicitly mention about its sensitivity to be at least 1.0 lux/0.1 lux as claimed. One skilled in the art would have recognized that the imaging device in Vincent would have a low sensitivity to produce a visually acceptable image of the object. Acuff teaches a standard video camera (i.e., an imaging device) should be sensitive down to 20 lux or lower for producing an acceptable image (col. 3, lines 43-49). Therefore, it would have been obvious to have the sensitivity of 20 lux or lower in the Vincent's photosensor as taught by Acuff in order to produce a visually acceptable image of the object.

Regarding claims 14 and 17, Acuff teaches:

- the imaging device is capable of supporting at least 400 (H) X 400 (V) pixel and 510 (H) X 492 (V) (col. 3, lines 49-50 teaches the CCD camera is capable of supporting 120 (H) X 180 (V) pixels or better).

The motivation for combining the two references is set forth in the discussion of claims 13 and 16 above.

Regarding claims 15 and 18, although showing the lens 15 in Fig. 1C, Vincent does not explicitly mention about an aperture to be at least F4.0 and F1.4 as claimed. One skilled in the art would have recognized that the aperture in the lens of Vincent would have been suitable for focusing the light reflected from the object onto the filter and then the photosensor for obtaining a visually acceptable image of the object. Acuff teaches the lens having an aperture of F3.5 or better to produce a visually acceptable image (col. 3, lines 43-49). Therefore, it would have been

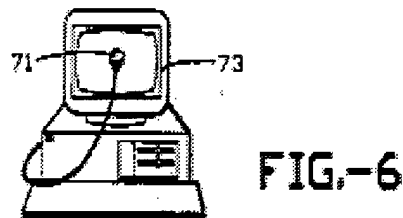
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obvious to have the aperture of F3.5 or better in the Vincent's lens as taught by Acuff in order to produce a visually acceptable image of the object.

Regarding claim 19, Acuff discloses:

- the imaging device is a solid state CCD image sensor (col. 3, lines 43-45, teaches a CCD image sensor).

Regarding claim 20, Vincent discloses a system comprising a conventional system (Fig. 6 shows a color monitor 73 modified from a conventional system to assess colors produced on a video screen).



Regarding claim 21, Vincent teaches said conventional system is a light intensifier (col. 37, lines 3-8, teaches a light intensity control means for increasing the intensity by changing the value of a monitor control parameter associated with the monitor).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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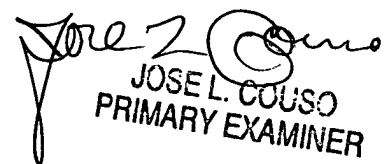
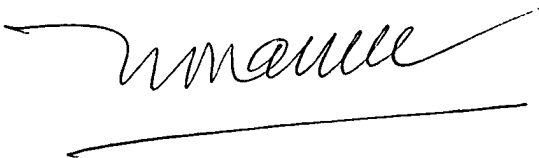
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

11. Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh Hong Do whose telephone number is (703) 308-6720.

September 14, 2000.



JOSE L. COUSO
PRIMARY EXAMINER